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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/676,296	09/28/2000	Peer Boerner	32156.0005	2340

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EXAMINER

SKED, MATTHEW J

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 06/29/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/676,296

Applicant(s)

BOERNER ET AL.

Examiner

Matthew J Sked

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23, 25-35, 37 and 41-45 is/are rejected.
- 7) ☒ Claim(s) 24, 36 and 38-40 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/24/00 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to because figures 1A-1B contain sloppy handwritten characters. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-18, 22, 23, 25-30, 34, 35, 37, and 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chase (U.S. Pat 6,332,143) in view of Kostoff et al. (U.S. Pat 5,440,481).

4. As per claims 1 and 44, Chase describes a system for determining the emotion of text comprising:

receiving a message (col. 6, lines 35-38);

identifying the words to analyze (col. 11, lines 7-9);

increment word count until ending point (col. 11, lines 54-56); and

change the emotive index (rating for global emotion base on word counts, col. 12, lines 40-43).

Chase does not teach determining whether the word count is greater than a threshold and setting a word count index value dependent on the determining result, then changing the emotive index based upon the word count index value.

Kostoff teaches analyzing a body of text for high-interest words or phrases, which includes counting keywords (col. 4, lines 59-61) and selecting keywords above a threshold (figure 5, step 72), for use in analyzing words and phrases.

It would have been obvious to one skilled in the art at the time of invention to modify the system of Chase to determine whether the word count is greater than a threshold and change the emotive index based on a word count index value set dependent on the determining result, in order to implement the suggested change of

emotive index of Chase based on word counts by using the suggested threshold base selection of Kostoff, and analyze the words in the Chase system via emotive index change by a constant chosen value to cumulate the number of emotional messages while allowing the change only when the word count is above a predetermined value.

5. As per claim 2, Chase teaches identifying noise text and excluding it from the identified words (col. 11, lines 7-9).

By identifying the words having emotion the inventor also indirectly identifies the words that do not determine emotion or noise text and excludes them.

6. As per claims 3-5 and 7-9, Chase and Kostoff do not teach that the noise text is an earlier message, footer, or words pasted into the document.

It would have been obvious to one skilled in the art at the time of invention to modify the system of Chase and Kostoff to make the noise words an earlier message, footer or words pasted into the document because these terms are irrelevant to determining the emotion of the author of the message.

7. As per claim 6, Chase teaches counting the number of words in the noise text (col. 5, lines 14-19). By counting the number of emotion words the author indirectly also counts the number of noise words.

Chase and Kostoff do not teach decrementing the word count value by the noise text amount.

It would have been obvious to one skilled in the art at the time of invention to modify the system of Chase to decrement the word count by the noise text amount because a presence of noise words indicates reduction of emotional intensity.

8. As per claim 10, Chase and Kostoff do not teach the ending point for the word count to be when the word count is equal to a threshold.

It would have been obvious to one skilled in the art at the time of invention to modify the system of Chase and Kostoff to stop the word count when the word count was equal to a threshold because it would save processing time by not having to count all the words in the document.

9. As per claim 11, Chase teaches the ending point for the word count to be last word in the message (count all the terms, col. 11, lines 54-56).

10. As per claim 12, Chase and Kostoff do not teach comparing the word count to a threshold to decide if the emotive index can be determined.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Chase and Kostoff to compare the word count to a threshold to determine if the emotion can be determined because small samples of text can make the conclusion indefinite.

11. As per claim 13, Chase teaches:

a list of affinity indicators ("Positive Emotions" category, col. 8, lines 8-11);
change affinity index if an affinity indicator is found (col. 12, lines 25-36); and
change emotive index by affinity index (col. 12, lines 40-43).

12. As per claim 14, Chase and Kostoff do not teach the affinity amount is the number of times the affinity indicator is found.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Chase and Kostoff to make the affinity amount the

number of times the affinity indicator is found because it would give an accurate weight to the appearance of the affinity indicator has in the document.

13. As per claim 15, Chase and Kostoff do not teach setting the affinity amount to a set value if the indicator is found at least once.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Chase and Kostoff to set the affinity amount to a value if the indicator is found at least once because it would allow the affinity amount to be change by a predetermined value no matter how many indicators are found.

14. As per claim 16, Chase teaches identifying the affinity indicator if a first word and second word are found in the identified words (words and phrases, col. 3, lines 62-64, and Table 2, "well-being").

15. As per claims 17 and 18, Chase teaches that the affinity indicators can be a phrase or a group of words (col. 3, lines 62-64).

16. As per claim 22, Chase teaches grouping the affinity indicators into classes (col. 7, lines 40-42) and indicating which classes are determined from the found keywords (col. 12, line 25). "Send signal" was interpreted to mean an indication that specific classes were found. In the reference, Chase calculates the rating for connotative content for each class and so if the rating is larger than zero this indicates that these classes were found.

17. As per claim 23, Chase also teaches:

separating affinity indicators into multiple classes (categories, col. 8, lines 8-13);

determine classes value (intensity of word in emotional category, col. 12, lines 35-36); and

determine affinity amount due to class value (col. 12, line 25).

18. As per claim 25, Chase teaches:

a list of antagonism indicators ("Negative Emotions" category, col. 8, lines 11-13);

change antagonism index if an antagonism indicator is found (col. 12, lines 25-36); and

change emotive index by antagonism index (col. 12, lines 40-43).

19. As per claim 26, Chase and Kostoff do not teach the antagonism amount is the number of times the antagonism indicator is found.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Chase and Kostoff to make the antagonism amount the number of times the antagonism indicator is found because it would give an accurate weight to the appearance of the antagonism indicator has in the document.

20. As per claim 27, Chase and Kostoff do not teach setting the antagonism amount to a set value if the indicator is found at least once.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Chase and Kostoff to set the antagonism amount to a value if the indicator is found at least once because it would allow the antagonism amount to be change by a predetermined value no matter how many indicators are found.

21. As per claim 28, Chase teaches identifying the antagonism indicator if a first word and second word are found in the identified words (words and phrases, col. 3, lines 62-64).

22. As per claims 29 and 30, Chase teaches that the antagonism indicators can be a phrase or a group of words (col. 3, lines 62-64).

23. As per claims 34 and 41, Chase teaches grouping the antagonism indicators into classes (col. 8, lines 11-13) and indicating which classes are determined from the found keywords (col. 12, line 25). "Send signal" was interpreted to mean an indication that specific classes were found. In the reference Chase calculates the rating for connotative content for each class and so if the rating is larger than zero this indicates that these classes were found.

24. As per claim 35, Chase also teaches:
separating antagonism indicators into multiple classes (categories, col. 8, lines 8-13);

determine classes value (intensity of word in emotional category, col. 12, lines 35-36); and

determine antagonism amount due to class value (col. 12, line 25).

25. As per claims 37, 43 and 45, Chase also teaches changing the emotive index by averaging the affinity and antagonism indexes.

Chase does not teach subtracting the absolute value of the affinity index from the absolute value of the antagonism index to change the emotive index.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Chase to calculate the emotive index by subtracting the absolute value of the affinity index from the absolute value of the antagonism index because it is matter of designer's choice. Both calculations involve decreasing the larger of the two index values so the emotive index is not changed by such a large sum.

26. As per claim 42, Chase teaches separating the affinity and antagonism terms into at least two classes (Four categories, col. 8, lines 8-13).

27. Claims 19-21 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chase in view of Kostoff, taken in further view of Shovers.

As per claims 19 and 31, Chase and Kostoff do not teach having a list of intensifiers, finding them and changing the emotive index by the intensifiers and affinity or antagonism index.

Shovers teaches a personality analyzer that determines personality through text and performs two context checks to determine how keywords are used in a document (col. 8, lines 34-43 and lines 51-67). The context check evaluates the text around a keyword to find certain intensifiers that will give a keyword a certain weighting to determine its meaning.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Chase and Kostoff to include Shovers context check because words can have different meanings depending on the environment in which they are used.

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28. As per claims 20, 21, 32 and 33, Chase, Kostoff and Shovers do not teach the intensifiers to be adjectives or adverbs.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Chase, Kostoff, and Shovers to make the intensifiers adjectives and adverbs because intensifiers are typically adjective and adverbs from general knowledge of language.

Conclusion

29. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Subasic et al. (U.S. Pat 6,721,734), Chase (U.S. Pat 6,389,415), and Chase (U.S. Pat 6,418,435) are all references that find emotion in text. Shovers (U.S. Pat 5,696,981) and Walters (U.S. Pat 6,363,346) both determine the mental state of the user from text. Kiyama et al. (U.S. Pat 5,642,518) and Ayyadurai (U.S. Pat 6,718,367) both determine the theme of a text from keyword frequency analysis.

Allowable Subject Matter

30. Claims 24, 36 and 38-40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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31. As per claim 24, none of the prior art of record alone or in combination discloses, suggests, or teaches **changing the affinity index by the affinity indicator nearest to the found intensifier.**

32. As per claim 36, none of the prior art of record alone or in combination discloses, suggests, or teaches **changing the antagonism index by the affinity indicator nearest to the found intensifier.**

33. As per claim 38, none of the prior art of record alone or in combination discloses, suggests, or teaches **changing the emotive index by intensifier index multiplied by the selected one of the affinity index and the antagonism index.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J Sked whose telephone number is (703) 305-8663. The examiner can normally be reached on Mon-Fri (8:00 am - 4:30 pm).

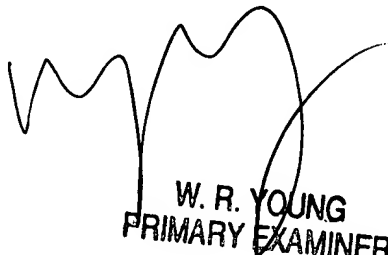
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on (703) 306-3011. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MS
6/22/04



W. R. YOUNG
PRIMARY EXAMINER